

NIEMELA - 10/091,602  
Client/Matter: 060258-0290731

### REMARKS

By this Amendment, the claims are amended to overcome the rejection under 35 U.S.C. 112 and merely clarify the recited subject matter. Applicant notes that the Examiner objected to the terms "signaling" and "signaled" in some of the claims but not all; in order to maintain clarity and consistency all references to those terms have been changed to "transmitting" and "transmitted" respectively. Claims 1-32 are pending.

Claims 1, 5, 10, 12, 16, 21, 23, 25, 27, 29 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rasanen et al. (U.S. 5,920,545; hereafter "Rasanen") in view of Bonta et al. (U.S. 6,097,957; hereafter "Bonta"), claims 2-4, 13-15, 24, 26, 28, 30 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rasanen and Bonta in view of Hakansson et al. (U.S. 2004/0062274; hereafter "Hakansson") and claims 6-9, 11, 17-20 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rasanen, Bonta and Minde et al. (U.S. 6,201,960; hereafter "Minde"). Applicant traverses the prior art rejections because the cited prior art, analyzed individually or in combination, fail to disclose, teach or suggest all the features recited in the rejected claims.

For example, the cited prior art fails to disclose, teach or suggest the claimed invention including calculation of a quality value for a service transmitted on the traffic channel during the certain time period by subtracting the number of frames transmitted during the certain time period from the number of frames received and correctly decoded during that certain time period, and by dividing a difference obtained by the number of frames transmitted during that certain time period, as recited in independent claims 1, 12, 23, 25, 27, 29 and 31 and their respective dependent claims.

As explained previously, Rasanen merely relates to a GSM system, wherein correctness of each frame is tested at the receiving end. In that configuration, the receiver sends a (negative) acknowledgement using a frame number. Subsequently, the unsuccessfully received frames are retransmitted; only in that way, is the quality of the connection is monitored.

In response to Applicant's arguments for patentability, the outstanding Office Action has recognized that Rasanen fails to disclose, teach or suggest the claimed features; however, the Office Action has asserted that Rasanen teaches:

1. the "quality of a non-transparent connection is monitored (a quality value is calculated) (Col. 3, ll. 17-18);"

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2. channel coding FEC (Forward Error Correction is employed on the traffic channel for reducing the effect of transmission errors on the radio path (Col. 5, ll. 4-6); and
3. monitoring the throughput (quality is monitored) may be based on calculating the "sliding or floating" of the success ratio (a quality value is calculated) e.g. with an equation:  $AVE(n+1) = AVE(n) * (1-D) + MEAS * D$ , where  $AVE(i)$  is an average value at instant  $i$ ,  $D$  is a "history co-efficient" ( $0 < D < 1$ ),  $MEAS$  is the last "measurement",  $MEAS=1$  represents re-transmission of a frame,  $0 \leq AVE(i) \leq 1$ . (Col. 8, ll. 4-17).

Apparently, these three points of assertion are meant to support the unstated conclusion of the Office Action that Rasanen somehow implicitly or inherently teaches the claimed feature of calculation of a quality value for a service transmitted on the traffic channel during the certain time period by subtracting the number of frames transmitted during the certain time period from the number of frames received and correctly decoded during that certain time period, and by dividing a difference obtained by the number of frames transmitted during that certain time period.

However, Applicant submits that Rasanen's passages cited by the Office Action, and the Office Action's interpretation of those passages, fails to provide the claimed calculation of the recited quality value in the manner required by the rejected claims.

Col. 3, ll. 17-18 of Rasanen merely teaches that the quality of a non-transparent connection is monitored, and, if the quality of the connection falls to a specific threshold value, a more efficient channel coding scheme is changed for the connection. Although col. 5, ll. 4-6 do disclose that FEC is employed on a traffic channel to reduce the effect of transmission errors on the radio path, Rasanen fails to provide additional detail regarding how FEC channel coding would produce the quality value calculated in the rejected claims.

Moreover, col. 8, lines 4-17 merely teaches on the subject of monitoring the throughput using a sliding or floating of the success ratio. However, the recited equation, analyzed in context of the teachings of Rasanen, or out of context (as the Office Action is attempting) fails to perform calculation of a quality value for a service transmitted on the traffic channel during the certain time period by subtracting the number of frames transmitted during the certain time period from the number of frames received and correctly decoded during that certain time period, and by dividing a difference obtained by the number of frames transmitted during that certain time period.

Furthermore, Applicant submits that, as indicated for example in rejected claim 5, the claimed receiver is configured to transmit an indication of a number of frames received on a

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traffic channel and correctly decoded to the transmitter, i.e., the number of frames is transmitted. To the contrary, in Rasanen, the receiving party acknowledges the reception by using the frame number, i.e., each received frame is acknowledged. Therefore, the transmission of an indication of a number of frames recited in claim 5 is not met by the acknowledgement of reception by Rasanen.

Bonta fails to remedy these deficiencies because Bonta (in particular, column 4, lines 41-44 and column 6, lines 13) merely discloses calculation of a frame erasure rate data in a modem simulator. In fact, the frame erasure rate of Bonta is only the fraction of frames erased in relation to the total frames; however, Bonta fails to specify what the "total frames" actually is a measurement of. Moreover, Applicant submits that the claimed invention is not merely the concept of a frame erasure rate itself, but involves the way the frames are counted. Therefore, Rasanen, analyzed individually or in combination with Bonta, fails to teach or suggest the claimed invention.

Furthermore, Minde also fails to remedy the deficiencies of Rasanen and Bonta because Minde merely teaches monitoring the bit error rate, among other parameters to assess speech quality.

Accordingly, the cited prior art, analyzed individually or in combination fail to disclose, teach or suggest the claimed invention. As a result, claims 1-31 are allowable.

All objections have been addressed. If anything further is necessary to place the application in condition for allowance, Applicant requests that the Examiner contact Applicant's undersigned representative at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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